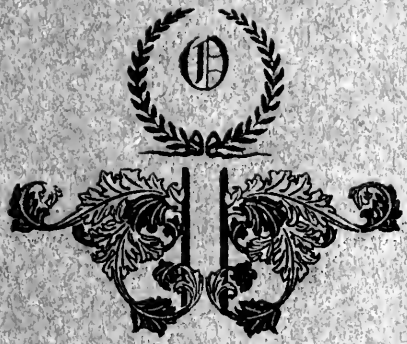
The Furrier's Friend & Adviser on Dressing and Tanning of Fur Skins and Hides



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DRESSING AND TANNING OF FUR SKINS AND HIDES

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GOTTFRIED F. OTT,

At His Glorious Time in Business

SKINNING AN ANIMAL

All small animals open across the hind legs; open the tail, loosen the skin from the legs, cut the paws of the bone but leave it on the skin. Take out the bone of the tail by catching hold of the point of the bone and pulling it out, not the other way, it might tear. Then pull the skin over the body and head leaving the front paws on also ears, eyes and lips and nose. Do not damage any of them; they may be needed. Then pull it over a board according to the shape of the animal.

With skins with broad legs such as Foxes just stick some newspaper over the flesh also tail to dry quicker. To prevent the loosening of the hair, turn ears outside the board. Large skins are best opened on the Belly also on front legs; dry in a shed but hang high out of reach of mice, rats and other thieves. Dry skins can be protected against moth or worms, by putting them into a tight box with Napthalene.

Hides can either be dried or covered on the flesh side with salt. Put sides, legs and head inside and role up.

TANNING HIDES

Preparatory to tanning the hides are to be soaked in clean, cold water. When they are green only a few hours to get the dirt and salt out. When dry for 2 or 3 days until thoroughly soaked but water must be changed every day principally in summer. After 12 hours soak flesh all can be gotten off and soak again. When well soaked flesh clean, then prepare: In 9 gallons of water boil for each gallon to be used, for one hide, 5 to 6 gallons of water, according to size of hide.

20 ounces of salt 5 ounces of alum.

When dissolved add the rest of the water, then there will be about 100 degrees Fahrenheit, if not, warm up to this, not hotter. Put the hide in and work about for one-quarter hour, let stand till next morning, take out and drain, save the liquor. When drained shave as thin as possible The easiest way to do this is: Make a frame of 2x3 8 feet long, 5 feet wide, put screw-rings inside of frame 1 foot apart. Then cut small holes close to the edge of hide at rump part and lace it on. Then with a short piece of rope lace the head then the sides. Use Window Cord. Put frame against the wall and draw the shaving knife down on the skin. This knife is made of a blade 4½ to 5 inches long, 2½ to 3

inches wide. One end is ground round flat and sharp then an edge laid on it. Then put in a piece of hard wood and fasten with a thumb-screw. Take the handle in the left hand and lay your right hand on the knife end; shave as close as possible to the edge. When through lace out and shave the sides on the beam. All the tools can be bought in a Curriers Supply house or in a big hardware store. When finished shaving, hide should be put back in the pickle for another 24 hours then draing and lace again.

Then give with a brush the leather side a solution of ½ lb. Gambier in 1 quart of water. When this is dried in somewhat give a slight greasing with cottonseed oil dry, lace out of frame and put in drum with sawdust and sand. When there is no drum, put skin in a bag, tie it up and jump on it, turning it all the while until it is soft. Then clean fur with sawdust if needed

The following formulas were given to me by a tanner and coat and robe maker. Anybody intresting himself I recommend the book Practical Tanning by Louis Flemming, for sale at Henry Carrey Baird & Co, formerly 810 Walnut Street, Philadelphia, Pa., booksellers. Now 710 Nassau Street, New York City, N. Y.

TANNING PROCESS NO. (1)

To five gallons of soft water add ½ ounce of sal soda, ½ ounce ammonia, two lbs Gum Gambier. Boil together until will dissolved, when cool place in your hides. If for several hides, you must have more water, Gum Gambier, etc Let the hides remain from 5 to 20 hours according to thickness or skin, then take out the hides and flesh well again The Gum Gambier carries a great portion of acid, and be sure the bath is cool before placing the hide in After well fleshed the second time, place in the bath again and leave until tanned which will be from 4 to 20 days according to thickness of skin, this will tan anything from an Oppossum to a cow hide.

PROCESS NO. (2)

After your skins have been well soaked and fleshed, wash them in six gallons of water, ½ pound baking soda, three ounces ammonia and a cake of Laundry soap, after washed well, rinse in clear water, and place them in the following liquor: to 10 gallons of water stir ½ bushel of wheat bran; 7 pounds of salt; set away in a warm place until it ferments which will be four or five days,

then take the hides out, strain the bran through an old Burlap or screen, then stir in the liquor 2½ pounds of sulphuric acid, stir all the time while adding the acid. Now place in your skins again and leave from four to ten days according to the thickness of the skins, for heavy hides twice the amount of acid should be used, when tanned hang them in the shade to dry. It is best to wash the furs in several waters when you take them out the last time. When the skins are partly dry work them with your hands, stretching them every way, and work them over a beam until dry. Now lay on your working bench and wet down again with soap and water, stretch well in all directions and tack on the table, let it dry, when dry take sandpaper and work off all surplus flesh; the Indians use stone for this work. If the hide is not soft and pliable enough rub in some butter or Neat's-foot oil. This is a good tan for anything from a mink to a cougar.

PROCESS NO. (3)

To ten gallons of soft water, stir one bushel of wheat bran, one cake of laundry soap melted, 2 ounces pulverized borax, 4 ounces sulphuric acid, one pound salt, soak hides in this until soft, take out and place in the tanning liquor as follows: ten gallons water, ½ bushel of wheat bran, set in a warm place to ferment. Add 2½ pounds of sulphuric acid, stir all the time while adding the acid. Muskrats and similar small skins should be left in this tan five hours, heavy skins several days, take out, rinse in several waters, rub while drying.

PROCESS NO. (4)

This is the lightning hand tan. Always use the same proportion whether making more or less of this liquor. 6 pounds salt, 6 pounds alum, 13 ounces saltpeter, 8 ounces borax. Pulverize well and place in good strong vinegar, stir and it will soon dissolve, place in the skins and let them soak 1½ hours. Then hang up and let drain. repeat this operation until skins are tanned. A colt hide will tan in two days. When skins are tanned wash in tepid soft water and a few drops of ammonia, stretch out well after partly dry, and tack to the floor or on the bench. The stretching helps open the pores and does not give the glue a chance to set. When dry sandpaper it and use butter or oil if necessary.

PROCESS NO. (5)

A good hand tan: To 1 gallon of soft water take 1 pound salt, 1 pound alum, ¼ pound borax and a few drops of sulphuric acid, stir this all together in luke-warm water. After your skins have been soaked and fleshed well, tack them to the floor and with a cloth spread the liquor over the skins once every day or every time the skins dry and it will tan in about three or five days. Take the tacks out and sand-paper the skin well.

PROCESS NO. (6)

Wash the skin thoroughly in rain water and good soap, rinse well in several waters, wring all the water you can get out and make a paste as follows: One pound salt, ½ pound alum, 1½ ounce borax, dissolve in hot water and right then mix with rye meal, make a thick paste, wipe the skin dry with a cloth, lay on the floor and apply a coat of paste on the flesh side with a brush or cloth, roll the skin up so the paste will not get on the fur and law away ten days, then unroll the skin and scrape the paste away. Wash in soft water and hang in the shade to dry. Watch and when dry spots come rub them and stretch them in every way and when nearly dry work them over a beam, heavy skins must be fleshed well and another application of the paste used and laid away for several days longer. For making cow and horse hides pliable and soft, I have worked bull hides for two days on my fleshing beam with a draw knife, and thinned it down so well it was as soft as a glove, it is also well to plan a way to stretch your heavy hides, for instance like an old fashion rope bed. This can be made out of a 2x4 eight feet long, nail together and make a square frame, with a ½-inch bit bore holes every foot around the frame, place your hide in the frame, cut holes in the cide and string it up to the frame with ¼-inch rope, first in the hide then to the frame, so on all around the hide. You can then string it up as tight as a drum head and with your good sharp sleek you can thin the skin so it will be evenly in thickness. An iron sleek is made with a piece of saw blade 5 by 3 inches, one edge ground square and set in a piece of pine board 8 by 4 inches smoothly worked off. One large horse or sow hide will make a coat, and you can get several pair of gloves and mittens off from the edges of the hide after the coat has been cut out.

PROCESS NO. (7)

Soak hides in cold water for one night, heavy hides two or three days, but change water every 12 or 24 hours until perfectly soft, then remove all flesh and pickle in the following: 1 gallon soft water to 20 ounces salt and five ounces alum; heat this up to 100 or 110 degrees F. not more. Now work into this pickle the skins for several minutes, then let it stand over night, next day hang the hides over a beam and let them drain; then shave them very thin (but heavy hides such as cow hides, put them in the same pickle for another night, drain again, then nail the hide to a board or on the floor). Oil over the pelt all it will take in of good Neats-foot oil. Now give a strong solution of Gum Gambier, 80 per cent. is a strong solution, take the Gum Gambier, say ½ lb. to 1 quart of water and boil until dissolved. Then dry, place in a drum with a little moist sand to soften the pelt. then add fine sifted sawdust to the drum and tumble. This will clean the hide. The main thing is to soak thoroughly to prevent any stiff places in the hide. If Gambier is not obtainable, leave it out.

This is the best formula for a new beginner, and it is an absolute sure tan for all hides, and is given before detailed, is also very useful for small skins, to pickle.

PROCESS NO. 8

Chrom Tanned Hides and Skins

Skins worked out in this way will always keep soft no matter how often they get wet. The skins, when thoroughly soaked, fleshed and washed, are put in a strong solution of Alum and Salt; 2½ pounds of Alum dissolved in 5 gallons of boiling water and then add 1 pound of salt. When the solution is cooled down to 100 degrees F., the skins are put in and stirred for about half hour and then let remain in it from 12 to 24 hours. Lift out, drain out, everything saved. Then add three pounds of saft and one quart of concentrated Chrom liquor. In the meantime shave the skins and put back in the alum liquor and work again. When the green color has gone through the thickest part of the skins they are tanned, but if not some more Chrom liquor should be added. When tanned a couple of ounces of bicar bonate of soda should be added to the liquor. Work again and let them remain in it for another day. Then wash in

Borax water, afterwards in clear water, drain and put in frame. When the excess of water is out, grease with grease paste. Dry and finish. (This grease paste is given later on.) Cotton seed oil may be used. Concentrated Chrom liquor is made: Dissolve so much of Bichromate of Potash as boiling water will dissolve.

PROCESS NO. 9

Tanning With Gambier, Alum, and Salt

After the hides are pickled with process No. 7 and shaved, they are put in a Gambier solution of three degrees by Baume for heavy fluid. Handle this until the strength is down to one degree, then strengthen up to six and handle every few hours until the hides are tanned through. After 24 hours wash a little, drain, frame and paste grease, or oiled.

Making Skins Mothproof

Add t othe tanning liquor per 600 grams of water:
10 grams Corrosive sublimate.
80 grams Carbolic acid.
10 grams Salicilic acid.
Skins handled in Process 7 are moth proof.

Sheep and Goat Skins

When dry they should be soaked one night in cold water, beamed in length and width. Then wash like Polar bears, but soda may be used in the soap suds. Rinse in warm water and pickle as in No. 7, and when it is to be dyed, black, can be taken in the Chrom bath and dyed as given later. But if it is to be kept white when dried, dampen lightly with clear water. Next morning beam and clean in Drum with white sand and whiting or talcum.

Goat skins need no washing otherwise than in the same treatment, but if they are to be natural clean them in hardwood sifted sawdust. The wet beaming and the after beaming has to be well done to make the skins soft and pliable. The pelt can be cleaned by an emery wheel, sand or pumis stone. The process to clean and bleach bear skins is given later.

Tanning Snakes, Eel and Alligator Skins

The skins like others have to be soaked in water until soft, then fleshed and put back in the water for a few hours. Then put in a solution of 1 gallon of water, 13 ounces salt and 1 ounce sulphuric acid for 6 or 8 hours.

Then put in alum and salt solution of equal parts about 12 to 15 degrees Baume and left there for 24 hours or longer, according to the size. They are then dried slowly and run in the turning tub with moist sawdust until all the scales come off; then stretch out dried and finished. If the scales have to remain on them handle with care; when dry just moisten with soap water; let lie for a while and stretch, if you want a bright shiny finish use casein or shellac; for dull finish flaxseed gum or gum tragacanth. Clean the pelt with sandpaper or pumice stone.

Tanning With Salt, Alum and Gambier

Skins are soaked until soft; stretching by hand quickens this process. Flesh, wash and put in the lime vat for 4 or 5 days until the outer scales can be easily removed. Wash in bran-water until clean; wash again and pickle in alum and salt as above for 3 days, 1 part alum and 2 parts salt, sufficient water to cover. After this start to pickle with gambier of 3 degrees Baume and strengthen every day 1 degree until 6 degrees are reached. Skins have to be taken out every morning, th 1 degree added and put back again. When tanned wash and grease paste and dry. When nearly dry stretch. Clean the pelt and finish as above given, bright or dull.

Dressing Fur Skins

Furs are not tanned but dressed or prepared for the manufacture. Fur skins are mostly dry, and if green dry first. This is done by stretching them on a board and putting strips of newspaper in the legs. Then put skins on the beam and with beaming knife push off the greasy skin, starting at the head. This is called scraping and recommended to trappers. A nicely scraped skin brings more money. Skins for dressing have to be brushed with salt water, a full handfull in about 10 quarts of water Use cold in summer and warm in winter. Then thoroughly wet soft wood sawdust with some water. Squeeze a handful and when a few drops come out it is right. Save this sawdust for next use. Then when the skins are open, put them on the ground with the fur down, throw the west sawdust on it. If the pelt skins are cased up sawdust first on the ground and then cover the skin with it all over well. So continue if you have more furs to soak. Open skins, first skin then sawdust, then skin again. See that heads and sides are

well covered as bare places will not soak. Let skins lay until next morning, then take out of the soak. Take small hides on the blunt knife on the bench and push all the flesh off, starting at the rump or tail. If there is thick skin on the head shave it off and wet again if it has not the needed stretch. Larger skins take on the beam and work with the beaming knife in lenghth and width. Then shave all hard spots and wet again or put in the sawdust if needed. Pull also the skin on the bench in length and width. This is very necessary and to be observed as will be explained in cutting furs. If the stretch is not given when wet it will not stretch when nailed out and you never get out of them what you otherwise could. When this is done make a pickle: 1 quart water, 5 ounces of salt and one ounce of sulphuric acid, stir up and brush the fleshed skins with it all over and as much as it will absorb. Let them lay over night. Leathery furs have to be brushed again and very heavy ones 3 times and over night or at least eight hours if done in the morning. When pickled, dry.

Observe that furs must be thoroughly soaked and worked before pickling. Pickle must only be put in stone or glass vessels. After furs are dry smear all over with a brush or rag the grease paste mentioned later on. Double furs up and let lay till next morning. Then observe them closely and if you find dry spots smear a little more one and let lay a few hours longer, then put them in the drum with sawdust which must be only of hardwood and sifted fine, for about one hour. Then put small skins on the blunt knife in the bench and pull it length and width again and shave what is heavy. Larger furs put on the beam again and shave, then put in drum again with clean sawdust and work for 3 or 4 hours To hasten this work put a charcoal can under the drum, or a gas arrangement. But both must be nearly the whole width of drum. But while you have get heat under it, see that it does not get too hot. As long as you can bear your hand on it, its all right, but if it gets hotter remove the fire. One-half hour with fire and one-half without will be sufficient. If you have power, fire is not needed, but 3 or 4 hours run. When they come out of the drum beat the dust out and emery out or take all the fleshy parts off by rubbing with pumice stone or coarse sandpaper.

Beaver, Otter, Nutria and Seal Skins

Which have to be unhaired. The first three kinds are

treated as follows: Soak in cold water at night. Next morning wash in half pound soap and 2 ounces of soda in a pail 90 to 100 degrees F. hot water. Wring with an ordinary cloth wringer; stretch the skins hair out on a board and put it in front of a hot stove or hot sun, but see that the stove is not too hot. Shake the skin several times to dry the hair and raise it, and when the pelt gets too dry wet again with cold water to keep it wet, else the hair will not come out. After a while try to pull the top hair out. When they come out easily put the skin on a beam which you have prepared by putting one layer of thick carpet and a raw skin dry on top of the carpet. Then rub the hair with a lump of chalk. Then take your beaming knife and work down the hair from head first, then upward. Use chalk freely—the knife has a better grip. What you cannot get out this way take a short blade knife like a potato peeling one and pull the hair out. Touch not the ground hair. When properly unhaired—that is, having most of the long hair out—pickle and finish like other skins. But seals being salted have to be shaved first, the fat off, then washed, by rights tacked in an iron ring and dried; then washed and treated same as other skins, like otter, beaver and nutria. But if some of these skins have to be dyed they should be shaved after the dye. It is not necessary to take every little bit of the top hair, but the fine top hair are better moved with a sharp knife, life a razor; draw it over the hair and cut them out before cutting.

The simplest way of dressing fur skins and hides is with alum and salt, as given in Lesson 1, Process 7. But the fur will be richer and glossier if water is kept out of the hair and therefore the method just given gives the best result and is employed in all the larger factories of Leigzig, Germany, the best in the world.

Muskrat Dressing

The hardest skins to dress are the muskrats. Therefore they are especially described. First scrape all the fat off the skins; then put in wet sawdust as given above. Next morning take out of the sawdust and pull on the blunt knife on the bench as long as possible. Put the well soaked by themselves; then the next; then the hard ones; wet them all after pulling and put the hard ones in sawdust again.

Fleshing Muskrats

Flesh the soft ones first; then the next; last before evening the hard ones which will be soaked by that time. For fleshing put in the bench your sharp knife; take the skin by the rump, right side first in your right hand the head part on the front pay hole and draw the skin lightly over the edge of the knife toward you and at the same time upwards. When that side is done do the other side; then the back. Do not touch the belly part but the head and rump. You will learn to cut almost on the first skin and when you can cut that you can cut the other skins. Do not let any unpickled skins lie over till next day in warm weather. When fleshed pickle them twice; thick ones three t mes. Dont flesh skin unless thoroughly soaked, else you cut the skin on the sharp knife. Never pull a skin on a sharp knife. Make it blunt first by rubbing a glass bottle over the edge.

Grinding a Fleshing or Shaving Knife

Grind the edge on both sides until the edge lies over all along. Then you are sure of a true edge; otherwise a false edge will do damage. When that grade is there take an oil-stone and fine the edge until smooth and clean of the grade. Your fleshing knife is ready for use. But on your shaving knife a grade has to be laid. After fining for this purpose take a round smooth steel; fasten it on a piece 2x3; then draw the edge over the steel; that grade just starts, but press pretty hard and pull through end fro, and lay the edge by every pull a little more to the r ght angle, until you have it exactly in the r ght angle. Then the knife is finished. When the edge is dull use the steel mentioned under tools. Just draw the point of the steel along inside the edge and then with the steel on the outside in the right angle. In this way, drawing just along the edge of the fleshing knife sideways, will also sharpen it.

Using the Shaving Knife

Take the cross handle in the left hand and the length handle in your right, having then the cutting edge in front of the knife, push it down on the skin, at the same time draw it sideways to the right, holding the cutting edge in a right angle to the skin. Hides which are shaved in the frame must be shaved on the fleshing beam on the sides.

Furrier's Supply Houses

For silks and linings write B. Altman & Co, 5th Ave.

and 34th Street, New York City.

For loops, olives, etc., write B. Cohen, 1265 Broadway, New York City.

For cutlery, write A. Delbon, 490-6th Ave., New York City.

For trimmings, etc., write G. Golstein, 39 W. 32, New York City.

For all supplies, Gross, Engel & Co., 115 W. 27 St., New York City.

For all supp ies, write Manhattan Fur Novelty Co., 11 Waverly Pl., New York City.

For all supplies, Perl, Winter & Co., 110 W. 26 St., New York City.

I recommend you to subscribe to the Fur News Magazine and get a Fur News Directory. It gives you all the supply houses and news worth knowing. They are published by Paul Belden, 71 West 23d St., New York City, N. Y.

Grease Paste

Mix 1 pound wheat middlings with 1 gallon of cold water, one pound tallow and half a cake of Fels Naptha soap. Boil this untilevery thing is dissolved; then add cottonseed oil until it shows itself on the top. Do not use it hotter than 90 degrees F.

Drum

The Drum consists of 2 sides with boards inside. The size ought to be: 3 feet diameter, 2 feet wide, boards inside 3 inches wide. 4 feet diameter, 2½ feet wide, boards inside 4 inches wide. 5 feet diameter 2¾ feet wide, boards inside 5 inches wide. 6 feet diameter, 3 feet wide, boards inside 6 inches wide.

The sides ought to be made for:

3 feet, 1 inch good match boards and 6 inch cross board.

4 feet, 1 inch good match boards with 12 to 15 inch cross board.

5 and 6 feet, double 1 inch matchboards crosswise. They are covered with galvanized iron and nailed close to the sides with 1 inch wire nails. The door is on one side. The drum is mounted on a frame, but must be one foot from the floor. The speed is about 16 to 18 revolutions per minute. The boards inside should be about two feet apart. When skins leave the drum with the sawdust, they can be put in a cage made in the same way as the drum, but covered with ½-inch wire

mesh. The speed for this is from 20 to 24 revolutions per minute.

Any blacksmith can make a shaving or beaming knife or they may be bought at a Curriers supply house. The blades may be made of old saws.

A Nailingout Frame for Hides is better than a board, as the skin dry quicker and they are not so heavy. Such a frame is made from boards 12x1 inch and 6x8 feet long. Two boards forming a rectangular frame.

When the skins are laced in the shaving frame tight, shave with the round shaving knife by pulling it down the skin. When this is done lace in the other half of the skin and shave, then shave the sides on the beam. There are two hinges on the frame so the frame can be lifted up and shave the bottom without stooping. The frame is like that of the nailingout frame but is hung on a crossbeam between two posts, thus the hinges make it possible to shave the bottom without stooping.

If you have power you can have an emery wheel and save a lot of labor. Revolutions per minute should be about 400, but no more. The wheel is made of two sides of cross boards and covered with 1½ inch pine boards but small and when turned quite around is 2½ to 3 feet in diameter and 6 to 8 inches wide and is boxed so that only about 10 inches is visible on top. On this part the skins are cleaned on the pelt, by holding the skin with the left hand over the wheel and with the right hand slightly press the skin on the wheel. When the wheel is turned put a box as big as the wheel to catch the emery that falls off when putting it on. Then have a hot glue pot ready and brush 6 or 8 inches long on the wheel as much as possible, then throw medium emery on the glue as much as it will take. Do another spot the same way until clear around the wheel. All the emery that did not stick in the glue fell in the box and can be used next time. When the emery is blunt let your wheel run and hold some kind of an iron against it, and put on emery again as before.

Skin Beating Machine

Have a piece of wood 3 feet long and 4 or 5 inches square. Put on an ironshaft about 4 feet long and on one end a loose and tight pulley and two bearing. Then get 8 pieces, each 3 feet long 1 inch angle irons. Have on two sides of the angle iron every two inches 3-8 inch holes double bored so that the two holes meet exactly.

Then have on the other sides of the angle iron every six inches a hole bored. Then cut strips of sole leather ¼-inch wide and 12 inches long. Get little screwbolts and fasten the straps in the angleiron with the two-inch apart holes. Every inch a strap then tighten the screws and the straps will hold in the irons. When all four rows of screws are finished screw them solid on the woodshaft by the six inch apart holes. Then have a form made of 3x4 wood and mount the machine on to it. There need not be more than two inches of space between the straps and the frame but in front the frame ought to be a foot longer. In this space a board will be kept with a roller in front. This board with the roller will be pushed against the straps with the skin on and beaten and then pulled back from the straps. If the skins are very dusty the entire machine should be boxed, leaving only the pulleys out. The speed of this machine should be from 150 to 200 revolutions per minute.

Deodorizing Fur Skins

In four gallons of water put four pounds of soap and four pounds of soda. Boil until dissolved then add 1¼ ounce of borax, 5-8 ounce sulphate of soda, one ounce oil of sassafras. Cool down to 90 degrees F. Work skins thru this and pickle with process No. 7. This is suitable for skunks, etc. In Germany the big dressing works simply put the dry and scraped skins in the drum with sawdust and a charcoal fire underneath and tumble for ¼ hour, extracting all the fat and with it all the smell disappears. They are then dressed like other skins. Therefore the German furs are always free from smell.

Buck Skin Tan

For each skin take 13 quarts of water and put into it one quart of lime; let the skin soak in this 4 or 5 days, then rinse in clean water and scrape off the hair. After scraping soak in cold water 2½ days, and scour or pound in good soap suds half an hour; then take white vitriol, alum and salt; 1½ tablespoon of each to a skin, dissolve them in enough water to cover nicely and let the skin soak in this 24 hours, then wring out as dry as possible. When dry spread on with a brush, ½ pint Curriers' oil and hang in the sun 2 days. Next scour out the oil with soap suds and hang out again until perfectly dry; then stretch and rub the skin until soft. If a reasonable time does not make them soft, scour out

again in soap suds until complete. The buff color is given by yellow ochre spread over the skin and rub well with a brush.

Dressing Fur Skins on a Large Scale

In the middle of the last Century the German skin-dressers used tubbing machines such as the ones used for leathering chamois leather or the woolen cloth and blanket makers used, for beaver and muskrats. Whilst the English and Americans used barrels or tubs like ox-heads and by this the work is called tubbing and the tubbing machine called kicker. In this tub a man goes and kicks and jumps about on the skins to make them soft and leathery. About 10 years later there was a tubbing machine constructed that almost every kind of skins could be tubbed or leathered in. They are only used in Germany, also invented there. They work much quicker and in almost half the time. There are several in use in this country put up on my advice.

Dressing Beaver and Muskrat Skins With Tubbing Machines

Skins are put in wet sawdust as described before. Next morning the hard parts shaved off and put back in the sawdust to soak thoroughly, then be pulled on the dull knife length and width, then stretched flat and dried. When dry stitched up lenghtwise with two-inch stitches with fine string. Then brushed with weak soda water. This applies to muskrats also. Let in till next morning covered up. best in a box to prevent drying; look over for dry spots, brush such a little more. Skins must not be too wet neither too dry Then grease the good ones first with half fish oil and half butter scraps, warmed up to 110 F. and put in tubbing machine; let run for 3 hours. Then take skins out pull long and grease the thick one sa little moreand put back in the tub for another 3 or 4 hours. The skins are done when there is no more whitish spots to be seen. Then beavers are oponed on one end and turned, fur out. Muskrats be turned also and put in drum with sawdust for 4 hours. Then opened and brushed with salt water, put in a box for 24 hours then they are pulled over a rope called roping Then combed and shaved. What cannot be shaved must be pared out on the sharp knife in the bench, and cleaned, beaten. Otter skins are only brushed with salt water anr greased with butter only; also mink, sable, skunk, Fitch, cats, marten and Ameri-

can Opossums with skin and grease on them. This sort of skins require about 3 ounces tubbing then taken out, opened or turned over to clean. But skins like sable, marten where the hair is not greased, may be brushed with salt water, lay 12 hours and fleshed on a half-sharp knife with a sharp place on top of knife in the bench, pulled round both ways and cleaned.

New York Way of Dressing Muskrats

The raw skins are brushed with salt water and put away till next day, then they are tubed. Then smeared over all with wet sawdust, lay over night anad fleshed and shaved if needed, then pickled with sulphuric acid and salt as given before then dried and tubed or drumed with suwdust to soften and clean.

Tanning Rabbit Skins For Dyeing

Make a small cut behind the ears of the skin put the finger in it and pull head and ears out, then open the skin on belly, cut off the tail and put skins in tub, Leather to hair nicely divided. Then put stones on a board on them, then fill up with water. Next morning throw them over a beam and cut the front legs open and flesh. Use the half sharp knife. Make a cut in the flesh, but not skin, about 2 inches long on the sharp spot on the knife at the tail end. Then loosen the skin and push the skin from the flesh, not the flesh from the skin, else it will tear all along the rump part over the hind legs, then the other side. When this is done catch hold of the flesh and pull it right over the head and the skin is fleshed. Do not squeeze or press the water out, when fleshing, they flesh better with the water in them Then prepare a Gambier solution of 1 degree by Baume, for heavy fluid. This is a hydrometer obtained at a wholesale druggist Work skin about well and let them rest till next morning and throw them over a beam, over the liquor to save it At night strengthen it up to 2 degrees next morning throw over again; at night strengthen to 3 degrees; so keep on every day increasing 1 degree until 5 is reached then wrink skins through a cloth wring , wash in warm water and grease with fish-oil and hang up to dry in air, no heat. When dry in hair, should be cleaned in drum. Pick out the thick ones and shave after brushed with water, then brush with the 5 degree tanning.

This tanning is for English and French seal dyeing. For dyeing with Anline—dyes or natural better be

pickled in process 7 given before. Hares skins are not fleshed only pulled on the knife.

Chinchilla Dressing

Brush the skins at night with salt water. 2 oz. salt in 1 gallon of water, put leather in leather, cover them up and let lie till next morning, brush again with salt water. Then make dull your fleshing knife with glass bottle by rubbing it over the edge, then pull the skin in the length so that everything will stretch in the width, but care has to be taken, under the front paw and over the hind leg are thin and weak spots and will tear easily, so catch hold of the side a little below the front leg and a little above , to avoid them spots. But pulling the sides is the main thing else they will remain raw. When all is in length then pull in the width but if anything can not be pulled in width that is a sign it was not well pulled in the length and has to be done over again. Leave the skin standing in width then put them on a heap leather up. Then having warm melted butter ready put your right hand flat on the butter and wipe the other hand with it, then put on skin start in center down to the rump and head and smooth on on the sides, the most should be brought in the middle of the skin, put skins in pairs and hang up at once, but watch them; they must be only half dry so that they can be pulled. Take them down in the foot tub with wheat bran; or can be put in a bag and rolled about with the feet for an hour. Then be taken on the same knife again but keep the rest in the bran cover them up and take out one at the time that they do not get dry; better put them in a box. Cover also the pulled ones up that they do not dry. Pull length and width when all done, stretch nice and flat good shape and hang up to dry. Then put skins in drum with fine white sawdust and white cly or talcum for half hour, then shake the dust and clay out and put them in some just a little moist sawdust or sand to dampen the skins a little to be able to pull them again. This has to be done on a pretty sharp knife but not cutting too close to skin Then put in drum again with white sawdust and talcum and turned till clean. When you blow in the hair and it closes up again then the hair is clean but when it stays open it is not clean yet. Small lots can be shaken in a light cardboard box to clean.